Assignment – 1

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Course – BCA Cybersecurity

Subject – Foundations of Data-Driven Decision Making

Course Code – ETSED111

Serial No – 38

Task1

Q.1 Describe a real-world scenario where decision
and mode using data.

Ans Electronic health records (EHR)
- EHR to track patients medical histories and
predict potential health issues.
- By analysing patient data, doctors can identify
patterns of diseases, recommend preventive
measures, and create personalised treatment
plans.

Task 2

Q. Descriptive, Predictive and Prescriptive Models
using data.

Ans 1. Descriptive model
- Description: Focuses on summarizing historical
data to understand what happened.
- Example: Hospitals analyse past patient admiss
makes to determine which seasons see
higher hospital occupancy.

2. Predictive model
- Description: Use statistical algorithms and
machine learning to predict future
outcomes based on past data
- Example: Predicting which patients due at risk
of developing diabetes based on higher
medical history lifestyle data.

3. Prescriptive model
- Description: Suggests actions or decisions which
can help achieve desired outcomes
- Example: Recommending an optional treatment
plan for cancer patients by analyse

Task3

Q.3 List and categorize at least 5 internal & external
data sources for company of your choice.

Ans Internal
1. Electronic health records
2. Patient feedback & surveys
3. Hospital finacial data
4. Staff performance
5. Inventory management

External
1. Govt. Health database
2. Insurance companies
3. Pharmaceuticals Research data
4. Wearable Devices & Mobile Apps
5. Public health organisations.

Task4

Q.4 Reflect on how adopting a data driven approach
can improve decision quality in classify life or
business.

Adopting data-driven approach significantly enhance
the quality of decisions in both life & business.
Ans In healthcare, it helps doctors make accurate
diagonosis, reduce human errors, and
predict patient outcomes with greaker permission
Hospitals can allocate resources more efficiently
and improve overall patient satisfaction.